

### CLAIMS

What is claimed is:

1. A micromachined structure comprising:
  - a) a first wet etched pit having a first flat surface;
  - b) a second wet etched pit having a second flat surface;
  - c) a dry pit disposed between the first flat surface and second flat surface.
2. The micromachined structure of claim 1 wherein the structure is made of <100> silicon.
3. The micromachined structure of claim 1 wherein the wet etched pits are anisotropically wet etched pits.
4. A micromachined structure comprising:
  - a) a wet etched pit having a flat surface;
  - b) a ring-shaped dry pit disposed in the wet etched pit;
  - c) a second wet etched pit disposed in the ring-shaped dry pit, wherein the second wet etched pit extends above the flat surface
5. The micromachined structure of claim 4 wherein the structure is made of <100> silicon.
6. The micromachined structure of claim 4 wherein the wet etched pits are anisotropically wet etched pits.

7. A micromachined structure comprising:
  - a) a wet etched pit having a flat surface;
  - b) a U-shaped dry pit disposed in the wet etched pit;
  - c) a wedge disposed in the U-shaped dry pit, wherein the wedge extends above the flat surface.
8. The micromachined structure of claim 7 wherein the structure is made of <100> silicon.
9. The micromachined structure of claim 7 wherein the wet etched pits are anisotropically wet etched pits.
10. A micromachined substrate comprising:
  - a) a wet etched pit;
  - b) a dry-etched hole disposed in the wet etched pit, wherein the dry hole extends through the substrate.
11. The micromachined substrate of claim 10 wherein the structure is made of <100> silicon.
12. The micromachined substrate of claim 10 wherein the wet etched pits are anisotropically wet etched pits.
13. The micromachined substrate of claim 10 wherein the dry hole is centered in the wet pit.
14. The micromachined substrate of claim 10 further comprising an optical fiber disposed in the dry hole.